REMARKS

The Examiner's final Action of August 20, 2003 has been received and its contents carefully considered. Reconsideration is respectfully requested in view of the following comments.

Claims 1, 2, 4-14, 16-26 and 43-46 are currently pending in the instant application.

I. Rejection under 35 USC 112, second paragraph

The pending claims have been rejected under the second paragraph of Section 112 for being indefinite. Reconsideration is respectfully requested.

In particular, the Examiner states that the specification "does not support a 'non-porous crystalline structure." Applicants disagree. As set forth in the specification in the "Background of the Invention" at page 2:

> in the case where plating is used to coat the gas separator with a metal having excellent corrosion resistance, *it is difficult to form a sufficiently compact coating layer. In other words, pores are formed in the coating layer.* As a result, even if the coating layer itself is formed from a noble metal having excellent corrosion resistance, *a substrate portion of the separator covered with the coating layer is gradually corroded through the pores formed therein, whereby the overall corrosion resistance of the gas separator is reduced.* In order to sufficiently suppress the effects of corrosion through the pores in the coating layer, it is necessary to form the coating layer with a larger thickness, resulting in increase in the amount of the noble metal to be used. Therefore, the use of such a method is not desirable.

The "Summary of the Invention" then states:

> A fuel cell gas separator, a manufacturing method thereof and a fuel cell according to the invention are *made to solve the aforementioned problems*, and it is an object of the invention to implement sufficient corrosion resistance in a metal gas separator.

In view of the above, and as further supported in the specification at pages 20-26, the specification clearly supports the fact that the invention aims at eliminating pores. There is in fact no other reasonable interpretation of the invention based at least on the quoted portions of the specification above, and on the specification at pages 20-26.

The layer having a porous or a non-porous crystalline structure is, as supported by the specification, closely related to grain size. A "porous crystalline" means a crystalline having a small grain size with pore generally. A "non-porous crystalline" means a crystalline having a large grain size without pore generally. The grain size and crystalline structure are described at pages 20-26 and in Fig. 7.

In view of the above, the Examiner is respectfully requested to reconsider and withdraw his rejection of the claims under the second paragraph of Section 112.

II. Rejection under 35 USC 102(e)/35 USC 103(a).

Claims 1, 4-13 and 16-26 have been rejected under Sections 102(e)/103(a) as being anticipated by/obvious over Yoshimura. Reconsideration is respectfully requested.

The differences in physical structure of the metal coating layer distinguishes the present invention's separators from those of Yoshimura. In Yoshimura, the coating layer is formed by electroplating, a process that results in a coating layer structure with micro-defects -- exactly the structure that the present specification uses as an example of a less desirable structure. *See, e.g.*, Yoshimura at 6:35-37; Application at 18:28-33. Moreover, while Yoshimura briefly mentions alternatives to electroplating, including sputtering and spraying with high heat oxidation (Yoshimura at 8:66-9:8), none of these alternatives provide a non-porous crystalline structure of the present invention, *i.e.*, Yoshimura suggests only coating layer structures that result from deposition of individual metal particles, with highly localized heating at impact or at exposure to oxidizing temperatures -- processes that do *not* result in the same non-porous crystalline structure that is achieved by the generalized melting and flow of material to eliminate defects as in the present invention.

In view of Yoshimura's failure to teach or suggest the non-porous crystalline structure of the present invention's metal coating layer, the Applicant respectfully submits claims 1 and 13 and their dependent claims are patentably distinct over the cited references under §§ 102(b), 102(e) and 103(a). Reconsideration and withdrawal of the pending rejections is therefore respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the foregoing amendments place the presently pending claims in condition for allowance. The Applicant therefore earnestly solicits issuance of a Notice of Allowance for claims 1-26 and 43-46.

The Examiner is invited to contact the undersigned at (202) 220-4296 to discuss any matter concerning this application.

No additional fees are believed to be required in connection with this submission. Nonetheless, the Applicants authorize payment of any additional fees under 37 C.F.R. § 1.16 or § 1.17 or credit of any overpayment to Deposit Account No. 11-0600.

Respectfully submitted,

Dated: 12-22-03

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